

METHOD AND APPARATUS FOR AUTOMATIC DETECTION OF A SERIAL
PERIPHERAL INTERFACE (SPI) DEVICE MEMORY SIZE

ABSTRACT OF THE INVENTION

5

A method and apparatus for automatically detecting the memory size of a serial peripheral interface (SPI) device. Specifically, the present invention describes an SPI interface circuit including a memory controller chip, an EEPROM, a sensing circuit, and a pulldown resistor. In one embodiment, a "READ" command from the controller to the SPI device is sent in a first byte of information transferred between the controller and SPI device. The data Input/Output (D-IO) pin is then driven low for the second byte of information. Next, the D-IO pin is floated and the pin assumes a logic "0" level due to a pulldown resistor. Subsequently, a sensing circuit can detect when and if a non-zero data value passes from the SPI device to the memory controller chip to determine the memory size of the SPI device or the absence of an SPI device.

10

15

20

Approved for Release